Prosecution Reopened After BPAI Decision

In a decision by the Board of Patent Appeals and Interferences (BPAI) dated 04/04/2008, the BPAI reversed:

- the 102 rejections of Claims 23-26 and 30-33; and
- the 103 rejections of Claims 1, 3, 4, 6-17, 19-22, 27-29 and 34-36.

The BPAI Decision was based solely on the following reason: "The Examiner has not persuaded us that the reference's determining whether a page number was located where it was anticipated or designated to be or the reference's determining whether a page is upside-down constitutes determining if the page was properly aligned for scanning as claimed" (see *BPAI Decision* - Page 5, first full paragraph, fourth sentence).

The BPAI Decision provided no additional analysis and/or reasoning to demonstrate why the 102 and 103 rejections of the claims were not proper. See the "ANALYSIS" section on Page 5 of the BPAI Decision.

Based upon the decision rendered by the BPAI, the 102 and 103 rejections previously set forth for Claims 1, 3, 4, 6-17, and 19-36 are withdrawn.

The examiner has specific knowledge of the existence of a particular reference or references which indicate nonpatenability of the appealed claims as to which the examiner was reversed. Additionally, the examiner has submitted the matter to a Technology Center (TC) Director for authorization to reopen prosecution under 37 C.F.R 1.198 for the purpose of entering new rejections.

The TC Director's approval is placed on this Office Action reopening prosecution, as indicated below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 30-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 30-36:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claims 30 and 35 recite a "*computer readable medium*" having instructions that perform various functions. In the Specification of the present application, the "*computer readable medium*" is defined as including a propagation medium, paper and other print mediums. In the context of the "*computer readable medium*" being a propagation medium, the "*computer readable medium*" recited in Claims 30 and 35 is not within a statutory class as defined in 35 U.S.C. 101 (*i.e.*, a "process," a "machine," a "manufacture" or a "composition of matter").

Additionally, a mere arrangement of printed matter, though seemingly a "manufacture," is rejected as not being within the statutory classes. See *In re Miller*, 418 F.2d 1392, 164 USPQ 46 (CCPA 1969); *Ex parte Gwinn*, 112 USPQ 439 (Bd. App. 1955); and *In re Jones*, 373 F.2d 1007, 153 USPQ 77 (CCPA 1967). Thus, in the context of the "*computer readable medium*" being paper and other print mediums, the

"*computer readable medium*" recited in Claims 30 and 35 is not within a statutory class as defined in 35 U.S.C. 101 (*i.e.*, a "process," a "machine," a "manufacture" or a "composition of matter").

Accordingly, Claims 30 and 35 fail to recite statutory subject matter, as defined in 35 U.S.C. 101.

Claims 31-34 and 36:

Claims 31-34 and 36 merely recite further instructions on the "*computer readable medium*" of Claims 30 and 35. Thus, the "*computer readable medium*" recited in Claims 31-34 and 36 is not within a statutory class as defined in 35 U.S.C. 101 (*i.e.*, a "process," a "machine," a "manufacture" or a "composition of matter").

Accordingly, Claims 31-34 and 36 fail to recite statutory subject matter as defined in 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23-26 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon et al., U.S. Patent No. 6,466,336 (hereinafter, "Sturgeon"), in view of Rangarajan, U.S. Patent No. 5,822,454 (hereinafter, "Rangarajan").

Claim 23:

Sturgeon discloses *a method for providing information corresponding to a scanned document* [see Column 1, Lines 6-12; see Column 2, Lines 16-45 → Sturgeon discloses this limitation in that the document handling system analyzes and organizes scanned pages to detect erroneously fed or scanned pages and notify a user of those pages]*, comprising:*

- *enabling selection of a characteristic of a page of the document* [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*characteristic of a page*" to be a page number. This interpretation corresponds to the present invention, as described in the Specification, which states that "a registration **characteristic** may include a **page number**" (emphasis added) (see Page 5, Lines 9-10). In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this

limitation in that the document handling system permits the user to identify a page designation (e.g., a page number) through a user interface];

- *scanning a page of the document* [see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text];
- *reviewing the scanned page for the selected characteristic* [see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system reviews the page for the page designation selected and entered by the user].
- *based on the act of reviewing, determining if the scanned page is properly* ***registered*** *for scanning* [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly* ***registered*** *for scanning*" to mean that a determination is made as to whether a registration characteristic for a scanned page ***corresponds with*** a user-selected registration characteristic. This interpretation corresponds to the disclosure of the present invention, as described in the Specification, which states that "For instance, if, during the review of a page, it is determined that the registration characteristic of that page **does not correspond**, *e.g.*, is not properly aligned, **with the selected registration characteristic**, correction of the page may be facilitated" (emphasis added) (see Page 6, Lines 8-11). Additionally, the Specification indicates that "pages not properly **registered** may be designated as possessing a **potential scan problem**" (emphasis added) (see Page 9, Lines 11-12) and that the **review step** "may include determining whether a page(s) is **missing** and/or **out of page**

number order, and then designating the page as being missing and/or out of page number order" (emphasis added) (see Page 9, Lines 16-19). As indicated in the above discussion, "registration characteristics" comprise page numbers. In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system identifies missing or misfed pages, based upon the page designation].

According to the BPAI Decision dated 04/04/2008, Sturgeon fails to disclose:

- *based on the act of reviewing, determining if the scanned page is properly **aligned** for scanning* [see *BPAI Decision* - Page 5, first full paragraph, fourth sentence].

Rangarajan teaches *a method for providing information corresponding to a scanned document* [see Column 1, Lines 9-12; see Column 4, Lines 25-32 → Rangarajan teaches this limitation in that the document scanning system: 1) automatically detects skew in scanned pages; and 2) identifies and extracts data from scanned pages], *comprising:*

- *reviewing a scanned page* [see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system reviews the scanned pages using templates, detects whether the scanned page are skewed and/or displaced and makes the necessary corrections for skew and/or

displacement so that the desired data can be identified and extracted from the scanned pages].

- *based on the act of reviewing, determining if the scanned page is properly **aligned** for scanning* [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly **aligned** for scanning*" to mean that a determination is made as to whether a scanned page is positioned correctly on the scanner. In other words, the phrase means that the scanned page is/is not properly aligned for scanning ***with respect to the scanner***. The examiner notes that Applicant also interpreted the phrase this way in the Reply Brief dated 01/29/2007 (see *Reply Brief* - Pages 1-2). In **Rangarajan**, see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system identifies those scanned pages that are skewed and/or displaced due to a misfeeding of the documents input into the scanner],

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement [see Column 1, Lines 64-67].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *based on the act of reviewing, determining if the scanned page is properly **aligned** for scanning,*

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement, as taught by Rangarajan.

Claim 24:

Sturgeon, in view of Rangarajan, discloses/teaches *the method of Claim 23, further comprising repeating scanning, reviewing and determining for each page of the document* [In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system allows a user to individually feed the pages of a document into the scanner, thereby allowing the user to: 1) identify a page designation for each page through a user interface, 2) review the page for the page designation selected and entered by the user, and 3) identify a misfed or missing page based upon the page designation].

Claim 25:

Sturgeon, in view of Rangarajan, discloses/teaches *the method of Claim 23, further comprising designating the scanned page for review if it is determined that the scanned page is not properly* ***registered/aligned*** *for scanning* [In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line

13 → Sturgeon discloses this limitation in that the document handling system flags missing or misfed pages].

Claim 26:

Sturgeon, in view of Rangarajan, discloses/teaches *the method of Claim 23, wherein:*

- *reviewing the scanned page for a selected characteristic comprises determining if the scanned page exhibits the selected characteristic* [In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system determines whether the page includes the page designation selected by the user]*; and*
- *determining if the scanned page is properly* ***registered/aligned*** *for scanning comprises determining that the scanned page is not properly* ***registered/aligned*** *if it is determined that the scanned page does not exhibit the selected characteristic* [In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system flags the page if no page designation is located].

Claims 30-33:

Claims 30-33 merely recite computer software for performing the method recited in Claims 23-26, respectively. The systems of Sturgeon and Rangarajan include computer software. Thus, Sturgeon, in view of Rangarajan, discloses/teaches every limitation of Claims 30-33, as indicated in the above rejections for Claims 23-26.

Claims 1, 3, 4, 6-17, 19-22, 27-29 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon, in view of Rangarajan, and further in view of Liu et al., U.S. Patent No. 6,735,335 (hereinafter, "Liu").

Claim 1:

Sturgeon discloses *a document processing system for providing information corresponding to a scanned document* [see Column 1, Lines 6-12; see Column 2, Lines 16-45 → Sturgeon discloses this limitation in that the document handling system analyzes and organizes scanned pages to detect erroneously fed or scanned pages and notify a user of those pages]*, said document processing system comprising:*

- *a scan review system configured for receiving scan information corresponding to a scanned document* [see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text]*, said scan review system being configured to enable selection of a registration characteristic of a page of a document to be scanned* [**EXAMINER'S**

INTERPRETATION → The examiner interprets the phrase "*characteristic of a page*" to be a page number. This interpretation corresponds to the present invention, as described in the Specification, which states that "a registration **characteristic** may include a **page number**" (emphasis added) (see Page 5, Lines 9-10). In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system permits the user to identify a page designation (e.g., a page number) through a user interface]*, review of image data corresponding to the scanned pages of the document relative to the selected registration characteristic* [see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system reviews the scanned page for the page designation selected and entered by the user]*, and, based on the review, determine if pages of the document are properly **registered** for scanning* [see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system identifies missing or misfed pages, based upon the page designation] *such that, in response to identifying a page of the document as not being properly **registered** for scanning, said scan review system designates the page for review* [see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system flags missing or misfed pages]*; and*

- *a scanner communicatively coupled to said scan review system, said scanner being configured to receive the document to be scanned and convert printed information of each page of the document into scan information, the scan information being provided in an electronic format to said scan review system* [see Figure 1; see Column 3, Lines 21-27 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text].

According to the BPAI Decision dated 04/04/2008, Sturgeon fails to disclose:

- *based on the review, determine if pages of the document were properly* ***aligned*** *for scanning* [see *BPAI Decision* - Page 5, first full paragraph, fourth sentence].

Rangarajan teaches *a document processing system for providing information corresponding to a scanned document* [see Column 1, Lines 9-12; see Column 4, Lines 25-32 → Rangarajan teaches this limitation in that the document scanning system: 1) automatically detects skew in scanned pages; and 2) identifies and extracts data from scanned pages], *said document processing system comprising:*

- *a scan review system, said scan review system being configured to enable review of image data corresponding to scanned pages of the document* [see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system reviews the scanned pages using templates, detects whether the scanned page are skewed and/or displaced and makes the necessary corrections for skew and/or displacement so that the

desired data can be identified and extracted from the scanned pages], *and, based on the review, determine if pages of the document were properly* ***aligned*** *for scanning* [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly aligned for scanning*" to mean that a determination is made as to whether a scanned page is positioned correctly on the scanner. In other words, the phrase means that the scanned page is/is not properly aligned for scanning ***with respect to the scanner***. The examiner notes that Applicant also interpreted the phrase this way in the Reply Brief dated 01/29/2007 (see *Reply Brief* - Pages 1-2). In **Rangarajan**, see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system identifies those scanned pages that are skewed and/or displaced due to a misfeeding of the documents input into the scanner],

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement [see Column 1, Lines 64-67].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sturgeon, to include:

- *based on the review, determine if pages of the document were properly* ***aligned*** *for scanning,*

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement, as taught by Rangarajan.

Sturgeon, in view of Rangarajan, fails to expressly disclose/teach:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin*,

Liu teaches *a document processing system for providing information corresponding to a scanned document* [see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text], *said document processing system comprising:*

- *a scan review system configured for receiving scan information corresponding to a scanned document* [see Figure 2], *said scan review system being configured to enable selection of a registration characteristic of a page of a document to be scanned and review of image data corresponding to the scanned pages of the document relative to the selected registration characteristic* [see Column 3, Lines 27-34; see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages],

wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin or right margin [see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the analysis and comparison performed by the document handling system verifies the sizes of the margins on the scanned pages], for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document [see Column 7, Lines 55-62].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed/taught in Sturgeon, in view of Rangarajan, to include:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin*,

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 3:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 1, wherein said scan review system is configured to provide a graphical user interface, said graphical user interface being configured to enable selection of the registration characteristic* [In **Sturgeon**, see Figure 1; see Column 3, Lines 21-27; see Column 3, Lines 50-56; see Column 4, Lines 62-67 →

Sturgeon discloses this limitation in that the document handling system includes a scanner with a user interface for inputting instructions for performing the batch scanning job. Also, the computer system includes a monitor, keyboard and mouse for "receiving data representative of both operational instructions or parameters," as expressly disclosed in Sturgeon. This disclosure implies that the document handling system includes a "*graphical user interface*."].

Claim 4:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 1, wherein said scan review system comprises means for enabling selection of the registration characteristic* [Sturgeon discloses this limitation, as indicated in the above rejections for Claims 1 and 3].

Claim 6:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein said scan review system is configured to determine a page number of each page of a document to be scanned and to designate scan information corresponding to pages of the document that are not scanned in page order* [In **Sturgeon**, see Column 8, Line 15 through Column 9, Line 35 → Sturgeon discloses this limitation in that the document handling system locates the page number for each page and employs optical character recognition to flag missing or misfed pages].

Claim 7:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein said scan review system comprises:*

- *means for determining a page number of each page of a document to be scanned; and*
- *means for designating scan information corresponding to pages of the document that are not scanned in page order* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6].

Claim 8:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein said scan review system is configured to generate two files associated with each page of a document to be scanned, a first of said files containing page content information and a second of the tiles containing page number information, said scan review system being further configured to utilize the page number information to arrange the page content information in page number order* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6. Also, the document handling system discloses a "*first file containing page content information*" in that it includes the scanned digital image of the page and a "*second file containing number information*" in that it includes a text file created through optical character recognition. Finally, the document handling system collates the scanned pages – see Column 9, Lines 14-35].

Claim 9:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein said scan review system is embodied on a computer readable medium* [In **Sturgeon**, see Column 3, Lines 21-45; see Column 4, Lines 53-67 → Sturgeon discloses this limitation, as clearly indicated in the cited text].

Claim 10:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein said graphical user interface provides a page viewing window configured to display therein scan information corresponding to a page of the document to be scanned* [In **Sturgeon**, see Column 9, Lines 36-49 → Sturgeon discloses this limitation in that the document handling system allows the user to view the scanned document].

Claim 11:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 9, wherein said scan review system comprises logic configured to designate pages of the document that were not scanned in page order* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6].

Claim 12:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 10, wherein said graphical user interface is configured to provide an operator with information indicating the pages of the document that were not scanned in page order* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6].

Claim 13:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 10, wherein said graphical user interface provides a page number field, said page number field being moveable by an operator about said page viewing window such that a location corresponding to a page number of a page to be scanned may be designated, and wherein said scan review system is configured to process scan information located in a vicinity of said page number field to determine the page number of the page* [In **Sturgeon**, see Column 6, Line 54 through Column 7, Line 30; see Column 8, Lines 15-24 → Sturgeon discloses this limitation in that the document handling system allows the user to input possible locations of page numbers and locates the page numbers through optical character recognition].

Claim 21:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the document processing system of Claim 3, wherein the a graphical user interface is configured to enable an operator to position the registration characteristic selected such that the scan review system compares a position of a document for scanning relative to the position of the registration characteristic selected* [In **Sturgeon**, see Figures 3-4; see Column 6, Line 17 through Column 7, Line 43 → Sturgeon discloses this limitation in that the document handling system allows the user to designate possible locations of page numbers and compares the designated page number locations to the scanned pages via optical character recognition].

Claim 14:

Sturgeon discloses *a method for providing information corresponding to a scanned document* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1], *comprising:*

- *enabling selection of a registration characteristic of a page of the document* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1];
- *reviewing pages of the document relative to the selected registration characteristic* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1];

- *based on the act of reviewing, determining if pages of the document are properly* ***registered*** *for scanning* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1]*; and*
- *enabling receipt of scan information corresponding to the pages of the document* [see Figure 1; see Column 3, Lines 21-27 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text)*.*

According to the BPAI Decision dated 04/04/2008, Sturgeon fails to disclose:

- *based on the act of reviewing, determining if the pages of the document were properly* ***aligned*** *for scanning* [see *BPAI Decision* - Page 5, first full paragraph, fourth sentence]*.*

Rangarajan teaches *a method for providing information corresponding to a scanned document* [see Column 1, Lines 9-12; see Column 4, Lines 25-32 → Rangarajan teaches this limitation in that the document scanning system: 1) automatically detects skew in scanned pages; and 2) identifies and extracts data from scanned pages]*, comprising:*

- *reviewing image data corresponding to scanned pages of the document* [see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system reviews the scanned pages using templates]*.*

- *based on the act of reviewing, determining if the scanned page is properly **aligned** for scanning* [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly aligned for scanning*" to mean that a determination is made as to whether a scanned page is positioned correctly on the scanner. In other words, the phrase means that the scanned page is/is not properly aligned for scanning ***with respect to the scanner***. The examiner notes that Applicant also interpreted the phrase this way in the Reply Brief dated 01/29/2007 (see *Reply Brief* - Pages 1-2). In **Rangarajan**, see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system identifies those scanned pages that are skewed and/or displaced due to a misfeeding of the documents input into the scanner],

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement [see Column 1, Lines 64-67].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *based on the act of reviewing, determining if the pages of the document were properly **aligned** for scanning,*

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement, as taught by Rangarajan.

Sturgeon, in view of Rangarajan, fails to expressly disclose/teach:

- *a registration characteristic, wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin.*

Liu teaches *a document processing method for providing information corresponding to a scanned document* [see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text], *said method comprising:*

- *enabling selection and review of a registration characteristic of a page of a document* [see Column 3, Lines 27-34; see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages],

wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin [see Column 3, Lines 27-34; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the

analysis and comparison performed by the document handling system verifies the sizes of the margins on the scanned pages],

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document → see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Sturgeon, in view of Rangarajan, to include:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 15:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 14, wherein determining comprises identifying pages not properly exhibiting the selected registration characteristic* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1].

Claim 16:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 14, further comprising:*

- *determining whether a current page of the document to be scanned corresponds to an expected page number; and*
- *if the current page number does not correspond to the expected page number, designating the current page for review* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6].

Claim 17:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 14, further comprising preparing an e-file corresponding to the document to be scanned* [In **Sturgeon**, see Column 4, Lines 41-52 → Sturgeon discloses this limitation in that the document handling system stores the scanned documents in an archive].

Claim 19:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 17, wherein preparing an e-file comprises the steps of:*

- *generating, for each page scanned, a first file containing page content information;*
- *generating, for each page scanned, a second file containing page number information, each second file being associated with a respective first file; and*
- *utilizing the second files so as to arrange the page content information of the first files in page number order* [Sturgeon discloses these limitations, as indicated in the above rejection for Claim 8].

Claim 20:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 19, further comprising:*

- *identifying pages missing from the e-file* [In **Sturgeon**, see Column 2, Lines 23-28 → Sturgeon discloses this limitation in that the document handling system flags missing pages in a batch job]*;*
- *scanning the missing pages* [In **Sturgeon**, see Column 2, Lines 28-29 → Sturgeon discloses this limitation in that the document handling system allows the user to rescan any missing pages]*; and*
- *providing page content information associated with the missing pages to the e-file such that the page content information is arranged in page number order* [In **Sturgeon**, see Column 2, Lines 30-32 → Sturgeon discloses this limitation in that

the document handling system automatically places all scanned pages in the proper order].

Claim 22:

Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *the method of Claim 14, further comprising:*

- *enabling an operator to position the registration characteristic selected such that a position of a document for scanning can be compared to the position of the registration characteristic selected* [Sturgeon discloses this limitation, as indicated in the above rejection for Claim 21].

Claim 27:

As indicated in the above rejection, Sturgeon, in view of Rangarajan, discloses/teaches every limitation of Claim 23.

Sturgeon, in view of Rangarajan, fails to expressly disclose/teach:

- *enabling selection of one or more of a position of a top line or a bottom line of the page, or a size of a top margin, bottom margin, left margin or right margin of the page.*

Liu teaches *a method for providing information corresponding to a scanned document* [see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text]*, comprising:*

- *enabling selection of one or more of a position of a top line or a bottom line of a page, or a size of a top margin, bottom margin, left margin or right margin of a page* [see Column 3, Lines 27-34; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages to verify the sizes of the margins on the scanned pages]*,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document [see Column 7, Lines 55-62].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Sturgeon, in view of Rangarajan, to include:

- *enabling selection of one or more of a position of a top line or a bottom line of the page, or a size of a top margin, bottom margin, left margin or right margin of the page,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 28:

Sturgeon discloses *a method for providing information corresponding to a scanned document, comprising:*

- *enabling selection of a characteristic of a page of the document* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system permits the user to identify a page designation through a user interface)*;*
- *scanning a page of the document* (see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text)*;*
- *reviewing the scanned page for a selected characteristic* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system reviews the page for the page designation selected and entered by the user)*; and*
- *determining that the scanned page was not properly* ***registered*** *if the scanned page does not exhibit the selected characteristic* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system identifies a misfed page based upon the page designation)*.*

According to the BPAI Decision dated 04/04/2008, Sturgeon fails to disclose:

- *determining that the scanned page was not properly **aligned** if the scanned page does not exhibit the selected characteristic* [see *BPAI Decision* - Page 5, first full paragraph, fourth sentence].

Rangarajan teaches *a method for providing information corresponding to a scanned document* [see Column 1, Lines 9-12; see Column 4, Lines 25-32 → Rangarajan teaches this limitation in that the document scanning system: 1) automatically detects skew in scanned pages; and 2) identifies and extracts data from scanned pages], *comprising:*

- *reviewing a scanned page* [see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system reviews the scanned pages using templates].
- *determining that the scanned page was not properly **aligned*** [**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly aligned*" to mean that a determination is made as to whether a scanned page is positioned correctly on the scanner. In other words, the phrase means that the scanned page is/is not properly aligned for scanning ***with respect to the scanner***. The examiner notes that Applicant also interpreted the phrase this way in the Reply Brief dated 01/29/2007 (see *Reply Brief* - Pages 1-2). In **Rangarajan**, see Column 4, Line 25 through Column 5, Line 17 → Rangarajan teaches this limitation in that the document scanning system identifies those scanned pages

that are skewed and/or displaced due to a misfeeding of the documents input into the scanner],

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement [see Column 1, Lines 64-67].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *determining that the scanned page was not properly **aligned** if the scanned page does not exhibit the selected characteristic,*

for the purpose of automatically identifying user defined zones within a document even in the presence of significant amounts of skew or displacement, as taught by Rangarajan.

Sturgeon, in view of Rangarajan, fails to expressly disclose/teach:

- *a **margin** characteristic.*

Liu teaches *a method for providing information corresponding to a scanned document* (see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text)*, comprising:*

- *determining a margin characteristic of a page of the document* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system determines a margin attribute of a scanned page)*;*
- *scanning a page of the document* (see Figure 2 → Liu teaches this limitation, as clearly indicated in the cited figure)*;*
- *reviewing scanned pages for the* ***margin*** *characteristic* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system reviews scanned pages and compares the margin attributes of the scanned pages to previous scanned pages)*; and*
- *determining that the scanned page is not properly aligned if the scanned page does not exhibit the* ***margin*** *characteristic* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system inserts page breaks where the margin attributes of succeeding pages do not compare favorably)*,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Sturgeon, in view of Rangarajan, to include:

- *a **margin** characteristic*,

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 29:

As indicated in the above rejection for Claim 24, Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches *repeating scanning, reviewing and determining for each page of the document.*

Claims 34-36:

Claims 34-36 merely recite computer software for performing the method recited in Claims 27-29, respectively. Thus, Sturgeon, in view of Rangarajan, and further in view of Liu, discloses/teaches every limitation of Claims 34-36, as indicated in the above rejections for Claims 27-29.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is 571-272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH
June 9, 2008

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